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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,062	06/01/2005	Jean-Jacques Donze	TW/4-22810/A/PCT	8831

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EXAMINER	
HEVEY, JOHN A	

ART UNIT	PAPER NUMBER
1793	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,062	DONZE ET AL.	
	Examiner	Art Unit	
	JOHN A. HEVEY	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-9, and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/2/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application

Applicant amendments to the claims and Rule 132 affidavit are acknowledged and considered. Claim 2 is cancelled. Claims 1, 3-9, and 12 are pending and presented for examination.

Response to Arguments and Declaration

1. Applicant's arguments filed 11/30/2007 have been fully considered but they are not persuasive.

2. Applicant submitted closest prior art and affidavit have been fully considered but they are not persuasive. Applicant does not in detail explain why submitted prior art is superior to the applied prior art reference. Furthermore, submitted 132 affidavit evidence is not commensurate with the scope of the claims. Only one comparison example is given which selects the highest end of the range of formula 1 and lowest end of formula 2 and does not show a representative range of the instant invention versus the prior art. In addition, applicant does not provide evidence of unexpected, unobvious or superior results. Applicant notes that the Ganz Whiteness values are similar, in fact the prior art has a higher whiteness value and would therefore be more desirable. Secondly applicant argues that the instant invention shows a more desirable tint value under 2, however, both the prior art and instant application show results within 0.2 of 2, and no error values are provided to show reliable evidence of unexpected results. Finally, applicant argues that the instant invention shows a clearly better light fastness,

however both mixtures show a result of 7, and are therefore equivalent. As a result, the examiner respectfully submits previous rejection to be proper and is made FINAL.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fringeli et al (US5053055).

a. In the instant case, a mixture of whitening agents comprising 13-17% a di-styrylbenzene (Formula 1), and 83-87% a bis-benzoxazole (Formula 2) which includes X, a bivalent radical of formula 3, 4, or 5; and further including R1 selected from hydrogen, C1-C6alkyl, C5-C14aryl, and C6-C24aralkyl.

b. Fringeli teaches a compound or mixture of fluorescent whitening agents selected from a group containing di-styrylbenzenes, bis-benzoxazoles, bis-benzoxazoles-thiophenes, bis-benzoxazoles-naphalenes, stilbenes, etc. It further teaches mixtures comprising 60-85% of a bis-benzoxazoles (mixture IV and VI column 9) and separately mixtures comprising 13-80% specific di-styrylbenzene compounds (mixtures I-III, and V, columns 8 and 9).

c. The prior art fails to teach a specific example of a mixture having both fluorescent whitening agents (Formula 1 and 2) as required by the instant claims. However, it would have been obvious to one of ordinary skill in the art to substitute the use of alternative whitening agents to arrive at the same fluorescent whitening material as required by instant claims because Fringeli suggested the use of 60-85% of a compound of Formula 2 (e.g. mixtures IV and VI, column 9) and 15-40% of an additional brightener with a compound of Formula 1, as essential components to make various fluorescent whitening products. The motivation for such a modification would be to improve fluorescent

whitening capability or to alter the color of fluorescent light. As evidenced by Fringeli's teaching, the techniques and skills required to make such modification are well within the level of ordinary skill in the art, and therefore the claimed subject matter is not patentably distinct over the prior art of the record.

d. In regards to claim 3, Formula 1a of the instant application is taught by the prior art in mixtures I, II, and III (column 7).

e. In regards to claims 4-6, Formula 2a of the instant application wherein R1 denotes hydrogen or C1-C6alkyl, and X is a bivalent radical of Formula 3, is taught by the prior art in claim 7 (column 14).

f. In regards to claim 7, Formula 2a of the instant application wherein R1 denotes hydrogen and X is a bivalent radical of Formula 4, is taught by the prior art's formula 14 (column 5).

g. In regards to claims 8-9 and 12 where the claims further require a composition comprising water, 3-25% by weight of whitening agents and 0 to 60% of auxiliaries, and preferably, 10-20% by weight of whitening agents and 5-50% of auxiliaries, Fringeli et al teaches a stable dispersion comprising 4-20% of fluorescent whitening agent, 2-20% dispersant, 1-15% of copolymer of 2-vinyl-pyrrolidone and 3-vinylpropionic acid, and .1-25% of further assistants (column 13, lines 20-31) and further a stable dispersion comprising 8-15% of fluorescent whitening agent, 2-10% dispersant, 2-10% of copolymer of 2-vinyl-pyrrolidone and 3-vinylpropionic acid, and 0.1-25% of further assistants (column 13, lines 32-

36). A suitable dispersant of water is described in the prior art (column 1, lines 23-24).

h. In regards to claims 13-16, the prior art teaches a method for whitening polyester and polyester/cellulose blends comprising the step of applying a stable dispersion to the polyester or polyester/cellulose blend, wherein said dispersion comprises at least one water-insoluble or sparingly soluble fluorescent whitening agent, at least one anionic, cationic, or non-ionic dispersant, a copolymer of 2-vinyl-pyrrolidone and 3-vinylpropionic acid, and further optional assistants (column 18, lines 14-22). Although, the prior art does not teach the application of this method to 'synthetic fibers', however, it would have been obvious to one of ordinary skill in the art to apply a method for whitening polyester to the instant claimed 'synthetic fibers' as polyester is a common type of such fibers.

In regards to claims 13 and 14, it would have been obvious to one of ordinary skill in the art to use a mixture according to the instant claim 1 in an aqueous medium. The mixture was taught by the prior art (see above) and would serve as said water-insoluble or sparingly soluble fluorescent whitening agent.

In regards to claims 14, it would have been obvious to one of ordinary skill in the art to use a composition according to the instant claim 8 in an aqueous medium. The composition was taught by the prior art (see above) and would serve as said stable dispersion of water-insoluble or sparingly soluble fluorescent whitening agent comprising optional additives.

In regards to claim 15, it would have been obvious to one of ordinary skill in the art to use a mixture according to the instant claim 3 in an aqueous medium. The mixture was taught by the prior art (see above) and would serve as said water-insoluble or sparingly soluble fluorescent whitening agent.

Conclusion

Claims 1, 3-9, and 12-16 are rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN A. HEVEY whose telephone number is (571)270-3594. The examiner can normally be reached on Monday - Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jah

/Jerry A Lorengo/

Supervisory Patent Examiner, Art Unit 1793